THREE NEW ERRHOMUS, WITH A KEY TO THE SPECIES

(Homoptera: Cicadellidae)

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In connection with the identification of a species of *Errhomus* from the State of Washington, I reviewed the material of this little-collected group which has accumulated since my earlier study of the genus (Proc. U. S. National Museum, 85 (3036): 169-173, 1938). This study revealed the existence of three previously unrecognized species, which are described herein, as well as the misidentification of some of the material reported upon in the earlier paper. Since the number of species has been doubled it also seems desirable to present a revised key for their differentiation.

Errhomus wolfei Oman, new species

Resembling *E. lineatus* (Baker) and *E. montanus* (Baker), but averaging slightly larger than either and the males usually heavily marked with fuscous. Dorsal process of aedeagus short and quadrate in lateral view and distal aedeagal processes not coarsely serrate. Length of male 7 mm., of female 7-8 mm.

Male sordid yellowish brown heavily marked with brown and fuscous on head and thorax, face black excepting irregular lateral areas and small pale maculae on front; forewing fuscous, veins and narrow bordering areas pale. Female pale sordid yellow with irregular pale brown to fuscous maculations. Crown of male nearly twice as long medially as next eye, that of female about two and one-half times as long medially as next eye. Male macropterous, female brachypterous. Nymps resembling female in general form and coloration.

Aedeagus stout, curved in same arc as styles, with short, keel-like, subquadrate process basally dorsad of shaft; shaft broad, rather flat, with a short terminal digitate process above gonopore and paired lateral processes as illustrated in figs. A and B; gonopore terminal.

Holotype male from WENATCHEE, WASHINGTON, May 10, 1949. Numerous *paratypes* of both sexes and nymphs from Wenatchee taken on various dates from April 15 to June 15 in 1949 and 1950. Other material is at hand from Wenatchee Heights, Monitor, Cashmere and Dryden, Washington. All specimens excepting a pair from Dryden collected by Homer R. Wolfe. The specimens from Dryden, collected by Melander, were previously reported as *lineatus*. Types and paratypes in the U. S. National Museum (No. 60897), paratypes in collection of Mr. Wolfe.

I take pleasure in naming this species for Homer R. Wolfe of the Washington State College Tree Fruit Experiment Station, who encountered it during the course of his work and to whom I am indebted for numerous specimens and interesting observations on its biology. According to Mr. Wolfe the species lives on *Balsamorrhiza sagittata* Nuttall, the nymphs first being observed during the first week of April. The first male was observed a short time later, and many cast skins could be found on both sides of the leaves. Copulation was noted during the first week of May. Mr. Wolfe reports that these leafhoppers are alert and can be seen running to the opposite sides of the leaves while the observer is still ten to fifteen feet away. When the plant is disturbed the males fly and the females and nymphs either crawl to the underside of the leaves or jump to the ground and hide in the grass.

Errhomus similis Oman, new species

Superficially identical with *E. lineatus* (Baker) but dorsal aedeagal process much shorter than shaft and distal processes with secondary spine-like projections. Close to *E. wolfei* in aedeagal characters. Length of ♂ 5.75 mm.

Color and form as in *E. lineatus* but available specimens slightly smaller than representatives of that species. Female presumably brachypterous and of the *E. lineatus* type.

Aedeagus curved in same arc as styles, with a small keel-like process basally dorsad of shaft; shaft relatively slender, with a short digitate process at apex and a pair of lateral processes as illustrated in fig. C; gonopore subterminal on caudo-ventral aspect of shaft.

Holotype male and one male paratype from YAKIMA, WASHINGTON, April 18, 1930, S. E. Crumb. One male *paratype* from Ellenburg, Wash., Oct. 17, 1929, S. E. Crumb. One male and one female specimen from Ritzville, Wash., May 19, 1922, M. C. Lane, previously identified as *E. lineatus,* are probably *E. similis,* as is a specimen in the University of Kansas collection taken near Dufur, Oregon, May 5, 1938. These specimens differ slightly from those in the type series in the number and arrangement of the secondary spine-like projections on the lateral processes, but the general structure of the aedeagus is like that of the Yakima material. Type and paratypes in the U. S. Museum (No. 60898).

Errhomus filamentus Oman, new species

Less robust than *E. wolfei,* and the aedeagus with paired basal ventral accessory processes. Length of male 8 mm.

Color sordid yellowish brown, irregularly mottled with brown and fuscous marks. Forewing suffused with pale brown, marked with fuscous along veins; veins pale, occasionally interrupted with fuscous or brown. Crown bluntly triangular anteriorly, median length about one and one-half times length next eye. Male macropterous, female presumably brachypterous.

Aedeagal shaft rather flat, broad basally, gradually narrowed to about half its basal width at apex, slightly recurved, bearing a pair of recurved, acuminate processes distally (fig. D), gonopore subterminal on dorsal side of shaft; accessory processes slightly shorter than shaft, subparallel to shaft, attenuate. Style with short dentate process on ventro-lateral surface at about middle of distal portion.

Described from a single male from OREGON CAVES, OREGON, July 19, 1923, F. H. Wymore. Type in collection of California Academy of Sciences.

KEY TO THE SPECIES OF ERRHOMUS

A. Eyes somewhat bulbous. Very robust species, males subbrachypterous. Shaft of aedeagus broad in lateral view.....*oregonensis* (Baker)

AA. Eyes not bulbous. Relatively slender species, the males macropterous. Shaft of aedeagus slender in lateral view.

B. Lateral processes at apex of aedeagus neither serrate nor with secondary spine-like projections.

C. Aedeagus with paired ventral accessory processes arising from base .....*filamentus* Oman

CC. Aedeagus with a single dorsal accessory process arising from base. .....*lineatus* (Baker)

BB. Lateral processes at apex of aedeagus either serrate or with secondary spine-like projections.

D. Lateral aedeagal processes with secondary spine-like projections.

E. Males more than 6.5 mm. long. Gonopore terminal.....
.....*wolfei* Oman

EE. Males less than 6 mm. long. Gonopore subterminal on caudo-ventral aspect of shaft.....*similis* Oman

DD. Lateral aedeagal processes irregularly serrate on exterior margins .....*obesa* Beamer

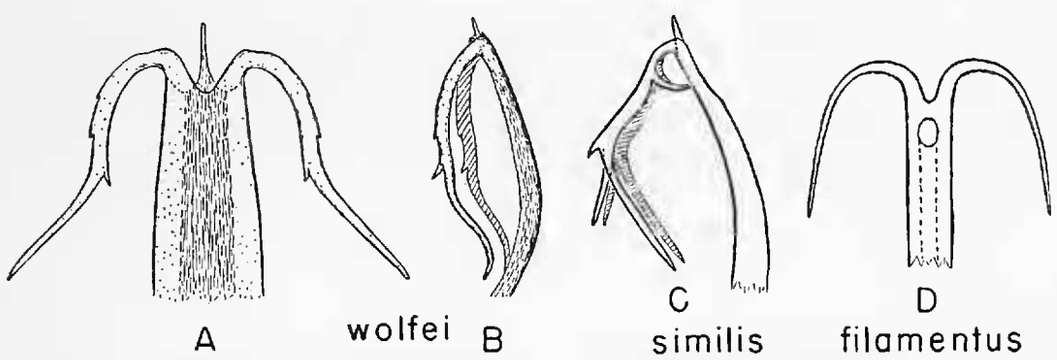

Fig. 1. A, caudo-ventral, and B, lateral view of distal part of aedeagus of *Errhomus wolfei;* C, lateral view of distal part of aedeagus of *E. similis;* D, caudo-ventral view of distal part of aedeagus of *E. filamentus.*